

Claims

[c1] We claim:

1. A drawing compass, comprising:

(a) an arm having a cylindrical portion and an elongated bar portion;
(b) an elongated handle;
(c) a marking instrument attached on said handle;
(d) a pivot pin holder slidably mounted on said bar portion of said arm; and
(e) means for rotatably mounting said handle on said cylindrical portion of said arm;
whereby the handle can freely rotate along the longitudinal axis;
whereby the elongated bar portion of the arm can freely rotate along the longitudinal axis of the handle.

[c2] 2. The drawing compass of Claim 1, wherein said handle comprises a cylindrical handle base and an extension handle sleeve; said handle sleeve comprising a threaded portion complementary coupling to a threaded portion on the upper portion of said handle base for engaging and securing said handle sleeve on the upper portion of said handle base.

- [c3] 3.The drawing compass of Claim 2, wherein said marking instrument is mounted on the lower portion of said handle base with a marking point positioning at the axis of said handle base.
- [c4] 4.The drawing compass of Claim 1, wherein said pivot pin holder further comprises a base, a pin having a pointed end, and a threaded securing bolt; said base comprising an opening dimensioned for slidably receiving said elongated bar portion and a threaded bore perpendicular to and communicating with said opening, said securing bolt being capable of threading through said threaded bore and engaging said elongated bar portion for retaining said pivot pin holder in a fixed position.
- [c5] 5.The drawing compass of Claim 1, wherein said means includes bearing means.
- [c6] 6.The drawing compass of Claim 5, wherein said bearing means comprises a collar, a threaded portion on the middle portion of the handle base, and a nut coacting in threaded engagement with the threaded portion on the middle portion of the handle base for retaining said cylindrical portion to the middle portion of said handle base.
- [c7] 7.The drawing compass of Claim 5, wherein said bearing

means is a plain bearing.

- [c8] 8.The drawing compass of Claim 5, wherein said bearing means is a ball bearing.
- [c9] 9.The drawing compass of Claim 5, wherein said bearing means is a roller bearing.
- [c10] 10.A drawing compass, comprising:
 - (a)an elongated arm;
 - (b)an elongated handle;
 - (c)a pivot pin holder slidably attached along said arm, said pivot pin holder having pin with a pointed end;
 - (d)a marking instrument mounted on said handle; and
 - (e)means for rotatably mounting said handle on one end of said arm;

whereby the arm can freely rotate along the longitudinal axis of the handle;

whereby the pressure applied on the pointed end of the pin can be adjusted by slightly inclining the handle towards the pin.
- [c11] 11.The drawing compass of Claim 10, wherein said handle comprises a cylindrical handle base and an extension handle sleeve; said handle sleeve comprising a threaded portion complementary coupling to a threaded portion on the upper portion of said handle base for engaging

and securing said handle sleeve on the upper portion of said handle base.

- [c12] 12. The drawing compass of Claim 11, wherein said marking instrument is mounted on the lower portion of said handle base with a marking point positioning at the axis of the cylindrical handle base.
- [c13] 13. The drawing compass of Claim 10, wherein said means includes bearing means.
- [c14] 14. The drawing compass of Claim 13, wherein said means comprises a collar, a threaded portion on the middle portion of the handle base, and a nut coacting in threaded engagement with the threaded portion on the middle portion of the handle base for retaining said cylindrical portion to the middle portion of said handle base.
- [c15] 15. The drawing compass of Claim 13, wherein said bearing means is a plain bearing.
- [c16] 16. The drawing compass of Claim 13, wherein said bearing means is a ball bearing.
- [c17] 17. The drawing compass of Claim 13, wherein said bearing means is a roller bearing.
- [c18] 18. The drawing compass of Claim 12, further including a

marking instrument holder having a threaded portion complementary coupling to a threaded portion on the lower portion of said handle base, said marking instrument frictionally fixing to said marking instrument holder through a central hole on said marking instrument holder.

[c19] 19. The drawing compass of Claim 10, wherein said pivot pin holder further comprises a base and a threaded securing bolt; said base comprising an opening dimensioned for slidably receiving said arm and a threaded bore perpendicular to and communicating with said opening, said threaded securing bolt being capable of threading through said threaded bore and engaging said arm for retaining said pivot pin holder in a fixed position.

[c20] 20. A method for using a drawing compass, the method comprises the steps of:
providing a compass having an arm, a handle rotatably mounted on one end of the arm, a marking instrument mounted on the handle, a pivot pin holder having a pin with a pointed end and securing means securing the pivot pin holder on the arm at a desired position;
providing a marking surface;
placing the pointed end on the marking surface;
placing the marking instrument on the marking surface;

placing the handle substantially perpendicular to the marking surface;

applying pressure on the marking instrument through the handle;

adjusting pressure on the pointed end by inclining the handle towards the center;

moving the marking instrument in a circular motion to produce a marking line on the marking surface.